

What is claimed is:

1. A data-processing and information system comprising:

a plurality of data-processing units for different process and/or product phases, which have application-specific languages and/or data models that are different from each other, and

an abstraction model for detecting and representing an element affected by a process and/or product modification, on the basis of an object class using a modeling of data characterizing process sequences related to the process phase and product structures related to the product phase.

2. The data-processing and information system as recited in Claim 1,

wherein the abstraction model can be visualized using the appropriate object classes.

3. The data-processing and information system as recited in Claim 1,

wherein a plurality of semantically equivalent elements of the abstraction model can be described by one single object class.

4. The data-processing and information system as recited in Claim 3,

wherein one single element of the abstraction model can be described on the basis of relations of the single object class to other object classes that stand in a reciprocal relation with the single object class.

5. The data-processing and information system as recited in Claim 1,

wherein the abstraction model is provided as input data for transformation algorithms for generating other application-specific languages and/or data models on the basis of the object class.

6. The data-processing and information system as recited in Claim 1,

wherein the abstraction model is provided for process chain modeling.

7. A method for operating a data-processing and information system comprising:

- operating a plurality of data-processing units for different process and/or product phases, which have application-specific languages and/or data models that are different from each other, and
- providing an abstraction model for detecting and representing an element affected by a process and/or product modification, on the basis of an object class using a modeling of data characterizing process sequences related to the process phase and product structures related to the product phase.